

**REMARKS**

Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks. Claims 1-20 were pending prior to the Office Action. Claims 21-29 have been added. Therefore, claims 1-29 are pending. Claims 1, 4 and 9 are independent.

**S 103 REJECTION – HARRINGTON, ADAMSKI, CHEUNG**

Claims 1-17 and 19-20 stand rejected under 35 U.S.C. §103 (a) as allegedly being unpatentable over Harrington (U.S. Patent 5,623,828) in view of Adamski (U.S. Patent 6,370,882) and Cheung (U.S. Publication 2002/0156509.) Applicant respectfully traverses.

For a Section 103 rejection to be proper, a *prima facie* case of obviousness must be established. See M.P.E.P. 2142. One requirement to establish *prima facie case* of obviousness is that the prior art references, when combined, must teach or suggest all claim limitations. See M.P.E.P. 2142; M.P.E.P. 706.02(j). Thus, if the cited references fail to teach or suggest one or more elements, then the rejection is improper and must be withdrawn.

In this instance, independent claim 1 recites, in part, “wherein the at least one fan is placed directly above the corresponding at least one first heat sink.” The combination of Harrington, Adamski and Cheung cannot be relied upon to teach or suggest at least this feature.

In the Office Action, the Examiner relies upon Harrington to allegedly teach the features of the first heat sink and the fan. More specifically, the Examiner alleges that the cold sink fin 33 and the fan 32 are equivalent to the at least one first heat sink and the at least one fan as recited in claim 1, respectively. See *Harrington, Figure 2*.

However, it is noted that the fan 32 is placed beside the cold sink fin 33. Harrington is silent regarding whether the placement of the fan can be altered to be anywhere other than beside the cold sink fin 33. Therefore, Harrington cannot be relied upon to teach or suggest the feature of the at least one fan being placed directly above the corresponding at least one first heat sink.

Indeed, Harrington actually teaches away from this feature. Harrington depends on the fan 32 to provide air to both the cold sink fin 33 and to the hot sink fin 34. See *Harrington, Figure 2; column 3, lines 65 – column 4, line 2*. The only way possible to provide air flow to both the cold sink fin 33 and to the hot sink fin 34 is to place the fan 32 in the manner shown in Harrington.

Adamski and Cheung have not been, and indeed cannot be, relied upon to correct for at least this deficiency of Harrington. Therefore, independent claim 1 is distinguishable over the combination of Harrington, Adamski, and Cheung.

Independent claim 4 recites, in part, “wherein the at least one first fan is directly above the corresponding at least one first heat sink.” It has been demonstrated above that the combination of Harrington, Adamski and Cheung cannot be relied upon to teach or suggest at least this feature. Therefore, claim 4 is distinguishable over the combination of Harrington, Adamski and Cheiung.

Independent claim 9 recites, in part, “wherein the at least one first fan is directly above the corresponding at least one first heat sink.” Again, it has been demonstrated above that the combination of Harrington, Adamski and Cheung cannot be relied upon to teach or suggest this feature. Therefore, for at least this reason, independent claim 9 is distinguishable over the combination of Harrington, Adamski and Cheung.

Claims 2-3, 5-8 and 10-20 depend from independent claims 1, 4 or 9 directly or indirectly. Therefore, for at least the reasons stated above with respect to the

independent claims, these dependent claims are also distinguishable over the combination of Harrington, Adamski and Cheung.

The dependent claims are also distinguishable on their own merits. For example, claim 3 recites, in part “wherein the at least one first fan is an axial flow fan.” In the Office Action, the Examiner alleges that the fan 32 in Harrington is an axial flow fan.

Contrary to the Examiner’s allegation, the fan 32 is not an axial flow fan. The fan 32 rotates about an axis defined by the intake ports 17 and 18. *See Figure 2.* It is clear that the air from the fan 32 blows to the cold sink fin 33 and to the hot sink fin 34. The direction of air flow is completely nonaxial. Thus, Harrington cannot be relied upon to teach or suggest the feature of an axial flow fan as recited in claim 3.

Claims 8 and 13 also recite axial flow fans. Clearly, Harrington cannot be relied upon to teach or suggest this feature as alleged by the Examiner.

Dependent claim 7 recites, in part “wherein the at least one air outlet is provided in all directions at the external case.” The Examiner alleges that Harrington, column 3, lines 46-47 of Harrington discloses this feature.

Contrary to the Examiner’s allegation, Harrington actually teaches away from this feature. As shown in Figure 1, the hot air exhaust and the cold air discharge are directed in completely different directions. This is necessary for the device as disclosed in Harrington to perform. Harrington discloses that the invention is directed toward cooling the air to improve the personal comfort of a driver or passenger in a vehicle. *See Harrington, column 1, lines 11-14.* As disclosed, the fan 32 draws air through intake ports 17 and 18 and discharges the air through the hot sink fins 34 and the cold sink fins 33. Due to the action of the solid state heat pump, i.e., the thermo electric cooling element 40, heat is transferred from the cold sink fins 33 to the hot sink fins 34. *See Harrington column 4, lines 66 - column 5, line 4.* The hot air is

exhausted away from the person while the cold air is directed to the person. See *Harrington, column 2, lines 65 – column 3, line 3.*

Clearly, if the air exhaust is directed in all directions as alleged by the Examiner, then the cooling effect would be minimized. In other words, the device as described in Harrington would be rendered inoperative for its intended purpose.

For at least the above stated reasons, claims 1-17 and 18-19 are distinguishable over the combination of Harrington, Adamski and Cheung. Applicant respectfully requests that the rejection of claims 1-17 and 19-20 based on Harrington, Adamski and Cheung be withdrawn.

#### **§ 103 REJECTION – HARRINGTON, ADAMSKI, CHEUNG, ICHIGAYA**

Claim 18 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Harrington, Adamski, Cheung and Ichigaya (U.S. Patent 6,516,624). Applicant respectfully traverses.

Claim 18 depends from independent claim 9. It has been shown above that Claim 9 is distinguishable over the combination of Harrington, Adamski & Cheung. Ichigaya has not been, and indeed cannot be, relied upon to correct for at least the above noted deficiencies of Harrington, Adamski and Cheung. Therefore, claim 9 is distinguishable over the combination of Harrington, Adamski, Cheung and Ichigaya. Due to the at least the dependency thereon, claim 18 is also distinguishable over the combination of Harrington, Adamski, Cheung and Ichigaya.

Applicant respectfully requests that the rejection of claim 18 based on Harrington, Adamski, Cheung and Ichigaya be withdrawn.

## NEW CLAIMS

Through this reply, claims 21-29 are added. All new claims are believed to be distinguishable over the cited references, individually or in any combination. For example, the new claims depend from independent claims 1, 4 or 9, directly or indirectly. Therefore, for at least due to the dependency thereon, the new claims are also distinguishable over the cited references of record. Applicants respectfully request that the new claims be allowed.

## CONCLUSION

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance. Should there be any outstanding matters that need to be resolved, the Examiner is respectfully requested to contact Hyung Sohn (Reg. No. 44,346), to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to 36 CFR §1.17 and §1.136(a), Applicant respectfully petitions for a one (1) month extension of time for filing a reply in connection with the present application, and the required fee of \$120.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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